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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,427	12/01/2000	Chun-Byung Yang	5333-01300	6080

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EXAMINER	
BROWN, JENNINE M	

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/728,427	Applicant(s) YANG ET AL.	
	Examiner Jennine M. Brown	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-32 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7, 11 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-7, 9-18, 20-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Menon, et al. (US 5346872).

Menon, et al. teach an ethylene catalyst (col. 9, l. 34-36) having a magnesium dihydroxycarbyloxide (prepared from reacting Mg with an alcohol) (col. 3, l. 53-59; col. 5, l. 9 – col. 6, l. 10) followed by a titanium compound (col. 3, l. 59-64; col. 8, l. 1-50) and/or vanadium compound (col. 3, l. 59-64; col. 7, l. 42-68) and/or silica compound. (col. 2, l. 34 – col. 9, l. 40) Halogenated titanium (col. 3, l. 65 – col. 4, l. 2), vanadium compound (col. 4, l. 3-8) are reacted with a halosilane (col. 4, l. 9-28; col. 6, l. 49-68; col. 8, l. 67 – col. 9, l. 10) and optionally with an aluminum compound, particularly a haloaluminum compound (col. 4, l. 13-15; col. 6, l. 49-68) or alkylaluminum compound (col. 8, l. 57-66).

Claims 1-7, 9-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Klimek, et al. (US 5587436).

Klimek, et al. teach an ethylene catalyst (col. 3, l. 14-16) having a magnesium dihydroxycarbyloxide (prepared from reacting Mg with an alcohol) (col. 5, l. 36-44) followed by a titanium compound (col. 5, l. 17-35; col. 6, l. 17-42; col. 6, l. 43 – col. 7, l. 2; Example in col. 10) and/or vanadium compound (col. 7, l. 45 – col. 8, l. 27) and/or silica compound, particularly a silica halide or hydrocarbyloxide silica (col. 7, l. 3-44; col. 8, l. 31-37) with an organophosphorus complex. (col. col. 5, l. 9 – col. 17; example; col. 14, l. 10 – col. 18, l. 16) Electron donors like triphenylphosphine oxide are cited (col. 5, l. 45-57). Organoaluminum cocatalyst like alkylaluminum halide is cited (col. 5, l. 58 – col. 6, l. 2). Activators and or modifiers are cited like boron halides (col. 6, l. 3-16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klimek, et al. (US 5587436) in view of Yang, et al. (US 6034025).

Klimek, et al teach a catalyst composition and method as described previously but do not specifically teach molar ratios of titanium and silicon to halogenated magnesium. Yang, et al. teach a catalyst composition and method of making and teach ratios of catalyst and co catalytic compositions (col. 4, l. 60 – col. 5, l. 6; col. 7, l. 2-14).

It would have been obvious to one of ordinary skill in the art to modify the composition of supported titanium to magnesium because this catalyst and co catalyst ratio would be important in changing properties of the polymer desired as well as the efficiency of the catalyst and ability to keep from agglomerating while polymerization occurs.

Response to Arguments

1. Applicants argue that the standard for "anticipation" regarding 35 U.S.C. 102(b) is one of "fairly strict identity" but the MPEP states, "... for anticipation under 35 U.S.C. 102, the reference must teach and every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present."

Claims are drawn to a catalyst composition not a method/process of making, therefore a comparison of the recited process with the prior art processes does NOT serve to resolve the issue concerning patentability of the product. In re Fessman, 489

F2d 742, 180 U.S.P.Q. 324 (CCPA 1974). Whether a product is patentable depends on whether it is known in the art or it is obvious, and is not governed by whether the process by which it is made is patentable. In re Klug, 333 F2d 905, 142 U.S.P.Q. 161 (CCPA 1964). In an ex parte case, product-by-process claims are not construed as being limited to the product formed by the specific process recited. In re Hirao et al., 535 F2d 67, 190 U.S.P.Q. 15, see footnote 3 (CCPA 1976).

Regarding Menon, the reference anticipates Applicants claimed invention by teaching each and every aspect impliedly and therefore is inherently present. Applicants claim a catalyst composition not a process of making therefore the product produced can be produced by a materially different process because the product itself is not patentably distinct. It is known in the art that an alcohol reacted with magnesium will yield Gringard reagent, i.e. a magnesium alkoxy compound, therefore the magnesium alkoxy compound taught by Menon inherently would have been made using a process that included reacting an alcohol with a magnesium compound either in one or more steps (Menon, et al. col. 2, l. 11-25). The silicon compound is an electron donor compound (a.k.a. "modifying compound") and is utilized as an electron donor and is therefore suggested by Menon (col. 6, l. 52-68). As is the titantium and vanadium compound as stated previously. Because the reference does anticipate Applicants claimed invention, Examiner maintains the previous rejections.

Regarding Klimek, the reference anticipates Applicants claimed invention by teaching each and every aspect impliedly and therefore is inherently present.

Applicants claim a catalyst composition not a process of making therefore the product produced can be produced by a materially different process because the product itself is not patentably distinct. Klimek states it is a titanium catalyst with an aluminum cocatalyst (col. 3, l. 27-28) with magnesium compounds (col. 5, l. 35-44). It is known in the art that an alcohol reacted with magnesium will yield Gringard reagent, i.e. a magnesium alkoxy compound, therefore the magnesium alkoxy compound taught by Klimek, inherently would have been made using a process that included reacting an alcohol with a magnesium compound either in one or more steps (col. 5, l. 36-44). Although Klimek does not give a list of each and every representative electron donor, the reference teaches use of an ester compound as well as phosphines and phosphites and silicon compounds used as electron donor with the vanadium and titanium catalyst (col. 5, l. 45-57) as well as the organoaluminum cocatalyst (col. 5, l. 58 – col. 6, l. 2). Because the reference does anticipate Applicants claimed invention, Examiner maintains the previous rejections.

Regarding the pending 103 rejection, Applicants have not argued against the validity of this rejection, therefore Examiner maintains this rejection for the reasons stated in the previous office action.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (703) 305-0435. The examiner can normally be reached on M-F 8:00 AM - 6:00 PM; first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on (703) 308-3823. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

jmb

Mark L. Bell
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